## **Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for background suppression and color adjustment of an input image, comprising the steps of:

passing an input signal through independent lookup tables, each operating on separate color components for outputting an adjusted pixel value;

determining if the luminance of the adjusted pixel value is at one of its two extremes;

if adjusted pixel value is at an extreme value then determine the amount of color in the adjusted pixel versus a neutral pixel, pixel;

if the amount of color is larger than a predetermined threshold then change the luminance value away from its extreme value;

if the amount of color is small than a predetermined threshold set the color of the pixel to zero; and

if the luminance value is not an extreme, no change is made, and the look-up table content is modified automatically based on the analysis of the input image;

wherein the analysis is based on collecting certain input image statistics, including luminance and dependent chromina histogram of the input image.

- 2. (Canceled)
- 3. (Canceled)
- 4. (Currently Amended) The method according to Claim 2 Claim 1 where thea white point, representing the brightest luminance area in said input image, is determined based on the luminance histogram content and applied to modify the look-up table content to lighten thean output image.
- 5. (Currently Amended) The method according to Claim 2 where thea black point, representing the darkest luminance area in the input image, is determined based on the luminance histogram content and applied to modify the look-up table content to darken thean output image.

- 6. (Currently Amended) The method according to Claim 2 Claim 1 where the luminance histogram values from the analysis is further used for modifying the look-up table content to enhance the input image, such as increasing the contrast of brightening the shadow detail of the input image.
- 7. (Currently Amended) The method according to Claim 2Claim 1 where the additional dependence chrominance the dependent chromina histogram is used for determining the neutrality of individual pixels or local area, or the entire input image, in order to detect whether the input image or any part of it is color or gray scale.
- 8. (Currently Amended) The method according to Claim 7 where the neutrality information is further applied to eliminate any residual colors in thean output image or any part of it by forcing thean output chrominance channel to zero.
- 9. (Currently Amended) The method according to Claim 7 where the neutrality information is further applied to preserve the color integrity of thean output image or any part of it by forcing thean output chroma channels away from zero.
- 10. (Currently Amended) A system for background suppression and color adjustment of an input image, comprising:

means for passing an input signal through independent lookup tables, each operating on separate color components for outputting an adjusted pixel value;

means for determining if the luminance of the adjusted pixel value is at one of its two extremes;

if adjusted pixel value is at an extreme value then determine the amount of color in the adjusted pixel versus a neutral pixel, pixel;

if the amount of color is larger than a predetermined threshold then change the luminance value away from its extreme value;

if the amount of color is small than a predetermined threshold set the color of the pixel to zero; and

if the luminance value is not an extreme, no change is made, and the look-up table content is modified automatically based on the analysis of the input image;

wherein the analysis is based on collecting certain input image statistics, including luminance and dependent chromina histogram of the input image.

- 11. (Canceled)
- 12. '(Canceled)
- 13. (Currently Amended) The system according to Claim 11 Claim 10 where thea white point, representing the brightest luminance area in said input image, is determined based on the luminance histogram content and applied to modify the look-up table content to lighten thean output image.
- 14. (Currently Amended) The system according to <u>Claim 11Claim 10</u> where <u>thea</u> black point, representing the darkest luminance area in the input image, is determined based on the luminance histogram content and applied to modify the look-up table content to darken thean output image.
- 15. (Currently Amended) The system according to Claim 11 Claim 10 where the luminance histogram values from the analysis is further used for modifying the look-up table content to enhance the input image, such as increasing the contrast of brightening the shadow detail of the input image.
- 16. (Currently Amended) The system according to Claim 11 Claim 10 where the additional dependence chrominancedependent chromina histogram is used for determining the neutrality of individual pixels or local area, or the entire input image, in order to detect whether the input image or any part of it is color or gray scale.
- 17. (Currently Amended) The system according to Claim 16 where the neutrality information is further applied to eliminate any residual colors in thean output image or any part of it by forcing thean output chrominance channel to zero.

Xerox Docket No. D/A2303Q1 Application No. 10/612,461

- 18. (Currently Amended) The method according to Claim 16 where the neutrality information is further applied to preserve the color integrity of thean output image or any part of it by forcing thean output chroma channels away from zero.
- 19. (Currently Amended) A method for background suppression and color adjustment of an input image, comprising the steps of:

passing an input signal through independent lookup tables, each operating on separate color components for outputting an adjusted pixel value;

determining if the luminance of the adjusted pixel value is at one of its two extremes;

if adjusted pixel value is at an extreme value then determine the amount of color in the adjusted pixel versus a neutral pixel, pixel;

if the amount of color is larger than a predetermined threshold then change the luminance value away from its extreme value;

if the amount of color is small than a predetermined threshold set the color of the pixel to zero; and

if the luminance value is not an extreme, no change is made and the look-up table content is modified automatically based on the analysis of the input image.

where the analysis is based on collecting certain input image statistics, including luminance and dependent chromina histogram of the input image.

## 20. (Canceled)